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PRELIMINARY STUDY CONCERNING THE EFFECTIVENESS AND FEASIBILITY OF DIRECT SACROSPINOUS HYSTEROPEXY BY TRANSFIXATION FOR THE MANAGEMENT OF HYSTEROPTOSIS

Hypothesis / aims of study

To evaluate the quality of surgical technique and the peri-operative course and short-term anatomic outcomes of hysteropexy by non-resorbable suture transfixed to the sacrospinous ligament (=direct sacrospinous hysteropexy) for the management of hysteroptosis.

Study design, materials and methods

A retrospective observational study of those undergoing direct sacrospinous hysteropexy with or without anterior vaginal repair between May and November 2010 was conducted. The subjects were for the most part those presenting hysteroptosis dominated uterovaginal prolapse. Patient characteristics including demographic data were obtained. Data regarding uterine descent was obtained at the preoperative visit and at 15 to 20 weeks following the surgical procedure. Immediate operative outcomes including operative time, blood loss, complications, and length of hospital stay were recorded.

For the direct sacrospinous hysteropexy technique, dissection and approach to the unilateral sacrospinous ligament was performed in the same manner as in the ordinary TVM-P. In order to pass a non-resorbable sutureThe procedure of passing a non-resorbable suture through the whole thickness of the SSL was as follows: penetrate the sacrospinous ligament postero-anteriorly by a modified Pauchet needle so that the needle eye is clearly seen deep in the operative field, pass a suture through the eye, draw back the Pauchet a little so that the tip is located just beneath the posterior surface of the SSL, and penetrate it again in a novel route some 5mm distant of the first passage and gather the two ends of the suture in the operative field.

For the second fixation point at the basal part of the uterosacral ligament, we used a Deschamps needle to secure sufficient tissue grasp. Before tieing the two ends of the suture to bring the uterine cervix close to the SSL, we made a pulley suture over the uterosacral ligament to avoid wire- in-cheeze injury.

Results

We recruited a total of 18 direct sacrospinous hysteropexy procedures. Demographic and operative data is presented in Table 1. Of the total cases, 12 were the first time POP repair so that anterior vaginal reinforcement with polypropyrene mesh was combined. The remaining 6 had underwent mesh surgery for pelvic relaxation so that direct hysteroptosis alone was performed.

Operative time and weighed blood loss during the procedure is shown in Fig 1 and Fig 2, respectively. We experienced no injury to the pelvic organ althouth there was one case which presented considerable bleeding during dissection. After removal of indwelling catheter on the second postoperative day, neither lower urinary tract infection nor voiding difficulty requiring intermittent catheterization was encountered.

Table 1
Patients' characteristics (n=18)

Characteristics	
Age (years)	67.4 [31–82]
Parity (n)	1.89 [0–3]
BMI	24.0 [19.1-28.2]
	n (%)
Menopausal status	17 (94.1%)
Hormone replacement therapy	0
Previous prolapse repair	5 (27.8%)
Previous surgery for SUI	1 (5.6%)

Figure 1 TIme required to complete direct hysteropexy / direct hysteropexy in combination with TOT sling procedure

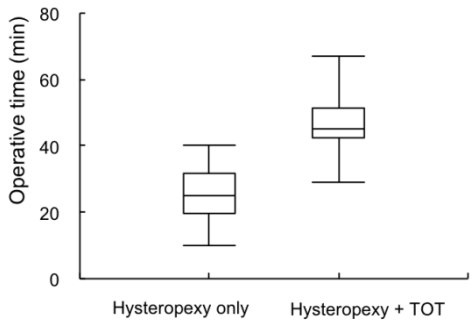

Figure 2 Blood loss during direct hysteropexy / direct hysteropexy in combination with TOT sling procedure

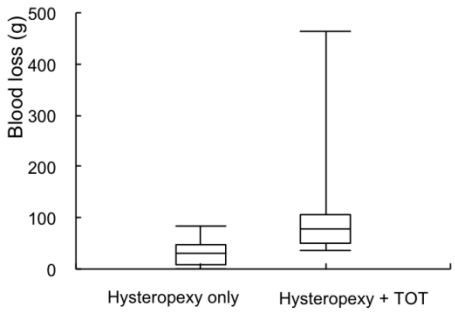

Table 2 Level of the uterine cervix as expressedby POP-Q staging n (%)

Stage	4	3	2	1	0
Pre-op	2 (11.1)	12 (66.7)	4 (22.2)		
Post-op 15-20wks	0	1 (5.6)	0	1 (5.6)	16 (88.9)

Table 3 Flexion of the utero-cervical axis n (%)

Stage	ante-version	straight	retro-version
Pre-op	4 (22.2)	6 (33.3)	8 (44.4)
Post-op 15-20wk	0	5 (27.8)	13 (72.2)

At 15-20 weeks post-operative follow-up, all cases except for the two at the very start and had the uterosacral ligament tied in a bundle with the SSL, had stage 0 hysteroptosis(14/16, 88.9%).

Interpretation of results

Several authors have reported the effectiveness and practicality of the uterus-preserving combination procedure for POP cure, consisted of hysteropexy and other repair measure for the lower anterior and posterior vagina(1,2). In most of the study a suture instrument like Miya hook is used in the hysteropexy to pass a non-resorbable suture in the SSL. We felt this technique to be somewhat unreliable sometimes and adopted another simple plan of transfixing the full thickness of the SSL to obtain more strong anchoring. Two pulley stitches, grasping the cervix bilaterally at the lowermost part of the uterosacral ligament, is the second point. Without this management, a simple stitch would bite into the fibrous tissue since tight knotting is necessary in hysteropexy.

Concluding message

After several years of reinforcing anterior and posterior vaginal support with mesh, the importance of surgical restoration of the vaginal apex is more and more realized recently. The hysteropexy method introduced here is quite easy for those who are accustomed to the TVM-P and reasonably safe since it is free of complications related to the mesh strap left along the pudendal nerve. Longer follow-up is needed to see if the hysteropexies of new generation exerts long-lasting apical restoration .

References

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**This is a systematic review of medical record**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**